

**For each question, you need to find the answer and show your work. Each problem is worth 3 points: one for the correct answer and two for showing your work. For some problems, you may just need to write out how you know you have the correct answer.**

1. Estimate the product  $495 \times 72$ . Is your estimate high or low?

2. Estimate the product  $703 \times 293$ . Is your estimate high or low?

3. Estimate the product  $843 \times 204$ . Is your estimate high or low?

4. Estimate the quotient  $9823 \div 11$ . Is your estimate high or low?

5. Estimate the quotient  $56321 \div 57$ . Is your estimate high or low?

6. Estimate the quotient  $9221 \div 89$ . Is your estimate high or low?

7. During the first 3 days of the semester, Matt Mitarnowski's school recycles the following number of cans: 312, 327, and 289. If they continue to recycle approximately the same number of cans each day, about how many more days would you need to reach 30,000 recycled cans?

8. A lease for a car requires a total of \$16,926.34 over 36 payments. Estimate the monthly payment.

9. Choose the set that is ordered correctly from greatest to least and state how you know.

a.  $\frac{9}{10}, \frac{1}{8}, \frac{3}{5}$

b.  $\frac{4}{9}, \frac{3}{16}, \frac{2}{11}$

c.  $\frac{11}{13}, \frac{7}{10}, \frac{4}{19}$

d.  $\frac{12}{17}, \frac{1}{13}, \frac{14}{15}$

**Open-Ended Question: Answer the following question on a separate piece of paper. Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!**

The food concession owner at a stadium knows that about  $\frac{2}{3}$  of all people attending a game buy a snack. He knows that of these, about  $\frac{1}{2}$  will buy hot dogs. He also knows that he should have at least 1300 extra hot dogs on hand.

A. Explain how the owner can decide how many hot dogs he needs to have ready if a crowd of 33,200 people is expected.

B. Using your work from part A, how many hot dogs will he have at the game?